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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,264	12/29/2000	Erhan Guven	TI-32148	7390

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EXAMINER	
LEVITAN, DMITRY	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/750,264	GUVEN ET AL.	
	Examiner	Art Unit	
	Dmitry Levitan	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Amendment, filed 04/13/2005, has been entered. Claims 7-16 remain pending.

Specification

1. In light of the Applicant's Amendment, the objections 1 and 2 of the previous office actions are withdrawn.

2. The disclosure is objected to, because table on page 18 is not properly disclosed. For example, it is not understood what X means in the table.

3. The amendment filed 04/13/05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: paragraph on page 4 of the Amendment, which describes the aspects of the table on page 18 of the Specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

4. Claim 11 is objected to because of the following informalities: claim 11 limitation "wherein said redundant data corresponds to new data of at least four packets having previous sequence numbers" is unclear as written. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. In light of the Applicant's Amendment, claim 8 rejection under the second paragraph of 35 U.S.C. 112 is withdrawn.

Claim Rejections - 35 USC § 102

6. Claims 7, 8, 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Vargo (US 6,167,060).

Regarding claims 7 and 11, Vargo teaches a method for reducing data loss in the event of packet loss in a modem connection over a packet network including transmitting and receiving gateways and modems (connection between Tokyo and North America on Fig. 1, including shown gateways and Internet, 3:35-49, using modems, shown on Fig. 6 and 4:56-67, 5:1-10), comprising:

Providing a packet format including a header, a sequence number and a data portion (packets, inherently containing headers and data potions, sequentially numbered 5:32-36),

Dividing said data portion into a plurality of segments (dividing the data stream sentence into packets, containing letters, as shown on Fig. 7a and 5:58-62),

Designating one of the segments as a new data segment (last packet in each packet groups as shown on Fig. 7a-d and 6:5-19),

Providing sequential blocks of modem data from the transmitting modem to the transmitting gateway (inherently part of the system, because transmitting gateways as shown on Fig. 1, comprise modems, shown on Fig. 6, so sequential blocks of modem data are transmitted from the transmitting gateway),

Retaining a predetermined number of sequential blocks of modem data at said transmitting gateway, by dropping the oldest block and retaining the most resent block (two blocks as shown on Fig. 7b and 5:63-67, 6:1-5, as block "T" is dropped in the third packet),

Providing the most recent block of data in said new data segment of said data portion of said packet (adding block "h", as shown in the second packet on Fig. 7b),

Providing the remaining retained blocks of data in the remainder of said segments (transmitting the data stream "This is a sentence" 5:51-59), wherein:

Each time said transmitting gateway receives a new block of data from said transmitting modem, said oldest block is dropped from said retained set of data (as shown on Fig. 7b-c and 6:5-20),

Said new block of data is encoded in the next data packet as redundant data blocks (level two redundancy 6:5-20), and

Transmitting said packets from said transmitting gateway to said receiving gateway (communicating between gateways as shown on Fig. 1).

In addition, regarding claim 11 (as understood), Vargo teaches redundant data corresponds to new data of at least four packets having previous sequence numbers (Vargo teaches attaching redundant data to packets as on Fig. 7a, including different levels of redundancy, shown on Fig. 7b-d, wherein the level of redundancy is greater or equal to 1, as disclosed in claim 15 10:50-65, producing four or more packets with previous sequence numbers,

Reading said sequence numbers of consecutively received packets to determine the packet loss (keeping the packets sequence intact 5:32-36),

Retrieving redundant data if packet loss is determined (using one of the redundancy methods on Fig. 7b-d and 5:63-6:35), and

Reading non-redundant data segments while discarding said redundant data if no packet loss is determined (reading "This is a sentence" streams shown on Fig. 7b-d and 5:63-6:35).

7. Regarding claim 8, Vargo teaches a method recovering lost packet, comprising:

receiving said transmitted packets,

reading said sequence numbers of consecutively received packets to determine packet loss, including comparing the sequence number of sequentially received packets and determining the difference in the compared sequence numbers (keeping the packets sequences intact by comparing each data packet to the previous data packet to determine packet loss or error 5:31-42),

providing the redundant data corresponding to data lost during said packet loss, to said receiving modem (recreating lost or errored packet utilizing the system redundancy 2:49-52).

8. Regarding claim 12-14, Vargo teaches establishing a redundancy format for a given modem relay connection including (changing the redundancy level to adapt to the changing network condition 2:53-56):

Negotiating a repetition count value (compromising between better speech quality and latency in the network 2:56-61),

Providing said repetition count value to each end of said modem relay connection (inherently part of the system, because gateway server manages communication session on both ends 3:1-10 and knowing the redundancy level on the other end is essential for the system operation).

In addition, regarding claim 14, Vargo teaches negotiating a whole number value for the number of new bytes in each data packet (changing the packet size to adapt to the changing network condition 2:53-56 and 6:49-60).

Claim Rejections - 35 USC § 103

9. Claims 9, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vargo in view of Grabelsky (US 6,678,250).

Vargo substantially teaches the limitations of claims 9, 10, 15 and 16, including a dynamical change of the redundancy level/number of sequential blocks in Fig. 7 due to the network condition 6:39-48.

Vargo does not teach comparing real number of missing packets with the predetermined number of missing packets and reporting the result.

Grabelsky teaches comparing with the predetermined number of missing packets and reporting the result of the comparison (comparing packet loss with alarm threshold and acting on the alarm 11:55-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add teaching of comparing with the predetermined number of missing packets and reporting the result of the comparison of Grabelsky to the system of Vargo to increase the packets redundancy level needed to improve the system operation in noisy environment.

Response to Arguments

10. Applicant's arguments filed 04/13/05 have been fully considered but they are not persuasive.

On page 11 of the Response, Applicant argues that Vargo teaches against using redundant data segments within the same packet to provide redundancy, therefore making his teaching different from the claimed invention.

Examiner respectfully disagrees.

The quoted portion Of Vargo (5:15-20) teaches the side effect of redundancy - the reduction of the transmission capacity, however on 5:22-27, Vargo teaches that the goal of eliminating voice nulls is worth sacrificing a certain amount of transmission capacity.

On page 12 of the Response, Applicant argues that the Invention staking multiple redundant pairs of consecutive data segments into multiple data segments of one single packet, different from Vargo.

Examiner respectfully disagrees.

Examiner believes that these arguments are irrelevant, as staking multiple redundant pairs of consecutive data segments into multiple data segments of one single packet are not directly claimed.

Applicant's arguments involving Table 18 are not understood as it was not properly disclosed in the specification. Examiner believes that the Amendment of 4/13/05, regarding the Table, introduces new matter and therefore to address the corresponding objection to the specification is to delete the Table from the specification

On page 13 of the Response, Applicant argues that the claimed method always including a new encapsulated data segment in each consecutive packet.

Examiner respectfully disagrees.

Examiner believes that none of the claims 7-16 contain limitation "including a new encapsulated data segment in each consecutive packet", however Vargo teaches including a new encapsulated data segment in each consecutive packet as shown on Fig. 7c, wherein each of the three packets includes new data segment: T in first, h in second and I in third.

On page 15 of the Response, Applicant argues that there is no motivation to combine teachings of Vargo and Grabelsky.

Examiner respectfully disagrees.

Vargo teaches the redundancy change upon the network condition 2:53-56, determined by the number of lost sequenced packets 5:32-36.

Grabelsky teaches generating an alarm and appropriate actions when the number of lost packets exceeds the predetermined threshold 11:54-67.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teachings of Grabelsky and Vargo to improve the system operation in noisy environment, by providing the packet loss count/network conditions of Grabelsky to the redundancy adjustment of Vargo system to change the redundancy level of Vargo under proper circumstances.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL

Dmitry Levitan
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06/09/05

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